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FAMILY RESILIENCE AND ADJUSTMENT IN EMERGING ADULT CANCER PATIENTS

VISHAKA KALRA, LIJO KJ.

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Family Resilience and Adjustment in Emerging Adult Cancer Patients

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Vishaka Kalra, Lijo K.J.

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Message from Editors

Welcome to Volume 2, Issue 3. Throughout this period, IJIP focused on improving our policies, format and facilities provided, keeping in mind our authors; because we love our authors and our authors love us!

Our main purpose is to put forward a variety of psychological ideas and researches to the world. We also aim to develop meaningful relationships with good publications around the world. We do this with the aim of providing advantage to us and to them. Some of the major publishers and institutes we have tried to connect to be Google, Academia, OAJI and Research Bible. We have also been given a chance to work with Publishing Police at a very low cost and high quality benefits.

IJIP has been rewarded with a No. 1 position with a score of 19.67 on the Directory of Science which lists the top 100 science journals throughout the world. Our impact factor is 4.50, evaluated by Index Copernicus International, from Warsaw, Poland.

In the following issue experts in varying fields of psychology have shared their ideas related to psychological problems and their solutions. We are grateful to these authors for allowing us to publish their researches and ideas in this issue. We would also like to thank other writers, and our beloved readers for providing a strong support and being a part of team.

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ABSTRACT

Cancer is an illness which claims millions of lives every year. This study explores the experiences of patients with cancer and their families in day to day activities and with regard to the illness in particular. The objectives of the study were to understand adjustment in emerging adult cancer patients, family resiliency to the illness and the interactional patterns between the family and the cancer patient. The research design was qualitative in nature and the paradigm used was a social constructivist paradigm. The sample included 6 unmarried emerging young adults with a diagnosis of cancer aged between 18 to 25 years. The data was collected with the help of semi structured interviews. Thematic analysis was performed on the data to get global themes which were factors influencing adjustment in emerging young adults, factors influencing family resiliency to the illness and factors influencing the interactional patterns between the family and the cancer patient. The results obtained in the study can help professionals in the field of oncology to develop effective social support systems not only for cancer patients but also for the family members and also help in improving lifestyle behaviors post diagnosis in these two populations.

Keywords: *adjustment, emerging adults, family resiliency, interactional patterns*

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CHAPTER 1: INTRODUCTION

Cancer accounts for one of the leading causes of deaths worldwide, having marked differences across different cultures with regard to the types of cancer and their prevalence. Cancer is the second most common disease after cardiovascular disorders for maximum deaths in the world (Jemal, Siegel, Ward, Murray, Xu, & Thun, 2007), accounting for about 23% and 7% deaths respectively in United States of America and India. The International Agency for Research on Cancer, which is an agency of the World Health Organization posted the World Cancer Fact sheet on January 2014, according to which an estimate of about 14.1 million new cases were registered in 2012 while it caused 8.2 million deaths in the same year. Incidence of cancer cases are expected to rise to a total of around 24 million by 2035. A study states that by 2020, about 15 million new cancer cases will be diagnosed along with 12 million patients dying with cancer (Bray and Moller, 2006).

India has a medium level of Human Developmental Index. Statistics suggest that about 44% of the cancer cases and 53% of deaths caused by cancer are in countries with a low or medium level of Human Development Index (HDI). On a national level, an estimate of 1.1 million new cases and approximately 68,283 deaths were reported. This indicates that India alone contributes 7.8% to the global cancer burden and 8.33% of global cancer deaths (Khanna & Saranath, 2014). According to the National Cancer Institute an estimate of 69,212 adolescents and young adults (AYA) ageing between 15 to 39 years were diagnosed with cancer in 2011. These results were over six times more than those diagnosed between the ages of 0 to 14, indicating that the former age group has been found to be more vulnerable to being diagnosed with cancer.



Being a complex group of diseases cancer is known to be caused by several behavioral, lifestyle and environmental risks. The incidence of various types of cancer across communities and cultures depends upon these factors which can be potentially modified thereby affecting the distribution and impact of the cancers across the globe. Today, the most common and known cause of cancer which contributes to about 1.5 million deaths per year, is the use of tobacco. Some other known causes of cancer are poor diet, certain specific infections, poor exercise habits, consumption of alcohol and occupational environments where there is risk of ionizing or non-ionizing radiation.

Use of tobacco and smokeless cigarettes are initiated and established during adolescence and young adulthood primarily due to reasons like peer pressure, lack of parental support, self esteem issues etc. Smokeless tobacco is no less of an evil than tobacco itself. Smokeless tobacco has about 28 chemicals which have been found to cause cancer. Similarly alcohol consumption at this age increases, and statistics show that 3.6% of all cancer cases and 3.5% of deaths due cancer globally are accounted by the consumption of alcohol. Diet and physical activity cause an increase in the risk of development of cancer. Poor diet, poor exercise habits and genetic obesity contributes to about 30-35% of cancer mortality rate. However over nutrition is known to be singularly the most important diet related cause of cancer (Wicki & Hagmann, 2011).

Occupations where nickel or chromium is used or handled increase the risk of cancer (Tsuchiya, 1965). Other common occupational carcinogens (substances that cause cancer) are asbestos, silica, beryllium, cadmium, benzene etc. Some of these carcinogens are found as pollutants in air and water and can also be naturally occurring chemical carcinogens.

Cancer is a condition characterized by uncontrolled division of abnormal cells such that these cells invade other tissues and impart the cancerous qualities to them to, thereby forming tumours. Damage to Deoxyribonucleic acid, DNA, due to genetics or other cellular interactions or due to influences of the environment, leads to the development of cancerous cells. Under normal circumstances any damage to the DNA is either instantly repaired by the cell itself or by the cell's timely death in order to counter the damage done. Cancer however is caused by cellular mutations which alter the behavior of the cell in some way. Mutation in the cell deactivates the cells ability to suppress the tumor gene, also deactivate the DNA repair gene, so neither the damaged DNA is repaired nor does the cell die like it should. This is an abnormal cellular behavior where the damaged cell continues to multiply rapidly to produce new unwanted cells which all have the same damaged DNA as the originating damaged cell. Mutation of the original cell deactivates the tumor suppressing gene in the cell, which then becomes characteristic of all the divided abnormal new cells. Thus all new cells produce have deactivated tumor suppressing genes, which contribute to formation of cancer.

These infected cells spread to other parts of the body through the blood stream or lymph vessels where they grow and can form new tumours which are nothing but groups of infected abnormal cell formations. This process is referred to as metastasis. However one should keep in mind that not all tumours are cancerous in nature. Benign tumours are one such type of tumours. This type

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majorly cause health related problems but they do not possess the ability to metastasize i.e. to spread to other parts of the body and infect those parts and thus are rarely life threatening in nature. The other type of cancer is malignant in nature, where the tumours are made up of damaged cells which possess the ability to grow and invade other tissues uncontrollably leading to development of new tumours and often possess a life threat. Based on their location, cancers can be of different types. If tumors grow in the lung, they are often referred to as lung cancer. Likewise, cancers that develop in the bone marrow are referred to as leukemia and cancers of the lymph system are called as lymphomas. Hence, the location of the growing tumor in our body often gives the cancer its characteristic name and features.

The origin of cancer dates back to the time of the Greek philosopher Hippocrates, who is considered the “Father of Medicine.” Hippocrates devised terms such as ‘carcinoma’ and ‘carcinoma’ to describe ulcerous and non ulcerous tumours. Galen was a Greek physician who used the word ‘oncos’ to describe tumours, a term which is still used till date as a part of oncology and oncologists.

The disease not only has a toll on the patient but also on the caregivers of the individual and the interactions between them. Support and assistance from family members is helpful in aiding the patient cope with stress resulting from the disease and treatment. (Pehlivan, Ovayolu, Sevinc & Camci, 2012). Family members of individuals with disabilities often experience stress, psychosocial adjustment, and affective problems such as depression. (Kosciulek & Lustig, 1998). According to Walsh in 2002 (as cited in Bellin & Kovacs, 2006), families of youths with a chronic condition may be subjected to various major stressors and challenges such as daily care giving needs, future health perspectives, financial needs etc, researchers have observed that some families as a whole emerge stronger and more resourceful from their experience.

Looking from the national perspective a few studies throw light on the patient's take on cancer and their mental health and adjustment. According to Ferox and Beg, younger patients and those with early stage of cancer showed higher death anxiety than older patients and those with advanced malignancies (1987). Other frequently reported distressing thoughts were that they were a burden on their family, their illness was worsening and the illness was a punishment from God. (Mehrotra, 2008).

Theoretical Background

The Resiliency Model of Family Stress, Adjustment and Adaptation was developed by McCubbin et al. (1993, 1996). It is a stress and coping clinical framework which is helpful in understanding how a family responds to chronic illnesses and disabilities. This framework has its roots embedded in Hill's description and interactions of variables leading up to a family crisis (ABCX Model), the Double ABCX Model, Family adjustment and adaptation response (FAAR) and the T-Double ABCX Model. These models worked on the following factors:



- a) Illness and disability to be seen as potential family stressors.
- b) Family resistance resources to be looked at such as economic, psychological etc.
- c) Family's appraisal of disability.
- d) Family coping patterns designed to protect the family from breakdown.

The resiliency model is an upgraded expansion of these models, but most importantly unlike the other models it focuses on post crisis, adaptation phase. Through the resiliency model one tries to understand why some families are resilient to crisis such as a chronic illness or disability while other families are vulnerable to crises situations. Thus it places more importance to family adaptation than family adjustment to the crisis.

This model comprises of two main components which are adjustment and adaptation. During the first phase i.e. the adjustment phase families tend to try and maintain the existing patterns of interactions of roles and rules that govern day to day activities. The adjustment phase is often characterized by certain components which shape day to day activities. These components according to this model include:

- a) Residual problems in the member with the disability as a family stressor
- b) Family vulnerability to stress
- c) Family functioning patterns or types

The outcome of family adjustment can be measured along a continuum where one end is characterized by 'bon-adjustment' and the other by maladjustment. The former depicts the ability of the family to maintain family functioning patterns while the latter denotes deterioration in keeping up to the established patterns.

Often it so happens that the consequences of chronic illnesses pose a negative threat to the family and its resource which hampers their emotional, social and economic demands as a result of having a member suffering from a chronic illness. Most of these families are not able to adjust to the illness and its stressors until and unless they have made major changes in their lifestyles and overall family functioning system inclusive of their goals, beliefs, rules, regulations, roles and priorities. Because of an illness, these families need to often change their entire lifestyles, they are more vulnerable to the stressors and a crisis may emerge as a result of maladjustment. However one should bear in mind that the Resiliency Model does not describe a family in crisis as one who has been stigmatized with the judgment that they have failed or are in reality a dysfunctional family. (McCubbin & McCubbin, 1991). Rather it means that there is family disorganization and a need for basic changes in lifestyle in order to form and attain a sense of coherence. This step toward a change in working and functioning of a family as a unit marks the beginning of the adaptation phase of this model.

Adaption helps to understand how families manage a crisis situation over time and how the family is able to bring about change and create balance again after the onset of the crisis. It can

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thus be described as the outcome of the family's efforts to restore a sense of cohesiveness in family functioning and leading to a satisfactory level of functioning in day to day life activities. The level of family adaptation can be measured by demands placed by the crisis on the family, leading to any life cycle changes, unresolved issues, family strengths and meaning attached by the family to the situation, and social support. There were five main propositions made in this theory that when the family is in crisis

- a) The number and frequency of demands in terms of stressors is related to family adaptation and this in character was a negative relationship.
- b) Family classification is based on specific strengths of the family such as cohesion, hardiness, adaptability, family time and routines and these strengths are related positively with family adaptation.
- c) There is a positive relationship family resources and family adaptation.
- d) Family's positive appraisal of the situation is directly related to family adaptation.
- e) Family's ability to cope and deal strategically with the crisis situation(s) is also directly related to family adaptation.

The risk and resistance model on the other hand was developed by Wallander and his colleagues in 1989 as a reference for explore the psychological adjustment of children and families with chronic physical disorders. This model hypothesizes that children with a chronic condition are at a higher risk of maladjustment due to factors related to disability, stress caused by it, the severity and the extent of understanding of the condition, associated neurological impairments, and difficulty in dealing with general life events and everyday hassles of an illness or disability. The model also postulates that resistance factors such as personal, socio-economical and those that are able to deal with stress can be used to moderate the risk factors and/or mediate the relationship between the crisis situation and adjustment.

Definition and introduction of variables based on the theoretical background. As the name suggests, the Resiliency Model of Family Stress, Adjustment and Adaptation, forms the theoretical basis for family resilience, which is a variable being assessed in this study. Family resilience involves the potential for recovery, repair, and growth in families facing serious life challenges (Walsh, 2012). The Resiliency Model of Family Stress, Adjustment and Adaptation tries to understand a family's adaptive response to a crisis situation, which in this study would be the family's response to their child (young adult) having cancer. On the other hand the risk and resistance model forms the theoretical framework for the second variable being assessed in this study which is adjustment to chronic illness. Adjustment is defined as the ability to adapt to the challenges posed by the illness and lead a healthy functioning lifestyle, both psychologically and socially. By measuring the resistance and risk factors we can get a better idea as to whether the patient is well adjusted or maladjusted as the theory postulates.



Rationale

The purpose of this study is to understand the relationship between family resilience and adjustment in emerging adult cancer patients and explore the interactional patterns between the family and patient post diagnosis. Thus through this study I would like to understand not only the well being of the familial caregivers and the patients but also emphasize on the nature of the interactions that take place between these two groups and how that may affect the treatment outlook and response.

One should keep in mind, that a crisis situation such as a chronic illness or disability affects not only the individual suffering from it but also has an overall effect on the family of the individual. Such crisis often has a cumulative additive effect on the entire family system if the proper attitude is not obtained and adopted. As mentioned earlier the disease affects both parties and literature has many such evidences supporting the argument stated.

There is very less literature available pertaining to family resilience, and even lesser with regard to cancer, especially in the Indian context. By measuring family resilience with respect to cancer we can understand how families cope with the adverse challenges placed on the families by the illness, along with helping to add to the existing knowledge.

Similarly there doesn't seem to be enough literature on whether the interaction between family members and the patient is unidirectional or bidirectional in nature.

Looking through literature, the diagnosis of a chronic illness has barely looked at the functioning of the family system as a whole unit separately. Most studies revolve around the illness and individual suffering from the illness. The family system is seen as a factor contributing to the illness, and so are the family members. Thus they tend to be an aspect of the study of interest, contributing to the main objective in whatever way possible. The functioning of a family system post diagnosis has rarely been the outcome of interest on its own, when viewing literature. Thus it becomes important to consider such aspects as separate outcomes and study their individual influence on the objective under study.

Also as most literature focuses on research in cancer based on adult or pediatric cancer populations, therefore my study focuses on emerging adults i.e. those aged between 18 and 25 years of age and how well they adjust to the chronic illness by identifying certain factors which influence this adjustment.

It thus becomes important for research to focus on cancer prevention, and how to increase the longevity of cancer survivors encompassing their psychosocial adjustment and mental well being along with that of their caregivers.

■ **CHAPTER 2: REVIEW OF LITERATURE**

Review of Literature is conducted in order to understand the various researches that have been undertaken with respect to my topic. I have studied many articles and researches which address similar and related topics. These have been discussed further in detail, in order to gain a better understanding of my topic.

Study conducted by McCubbin, Balling, Possin, Friedrich, & Bryne, in the year 2002, found that when a child is diagnosed with cancer, many new demands and stressors are placed on the family system with the primary question of survival. The sample consisted of 42 parents out of whom there were 25 mothers and 17 fathers who had a child treated for cancer within the precious 3 years of this research. According to research there is a need to shift from an emphasis on coping with a disease to understanding how the child, parents and family adapt and recover both during the active treatment phase and in long term survival. Changes in internal family functioning, use of social support resources and need for appraisal were important and critical resilience factors the researchers identified with.

According to a systematic review conducted by Williams & McCorkle (2011) the psychological burden a caregiver has can often exceed that of a critically ill patient and it is possible that the distressed caregiver may have deleterious influence on the patient's well being. Cancer family caregiver's, be in palliative, hospice or bereavement stages are at an increased risk for developing physical and mental problems. However more research needs to be carried out on the increase of psychological burden and distress among caregivers as the patient's condition worsens along with focusing on the consequences the patient might face as and as the caregiver becomes more depressed and anxious.

Research conducted by Baldwin, used in depth interview methods to analyze the family's perception of their own resilience, which proved to coincide with their narrative of their caregiver's experience. Most caregiver's rated themselves to have moderate to high resilience (2012).

A non-peered review study, conducted by Mackin (2002), studied family resilience by identifying factors that promote and influence it during a critical illness. Results showed that a family with high resiliency depicted higher degree of perceived competence and used many coping strategies and compared to those with lower resiliency.

Walsh (2007) published an article which understands the core principles governing family and community resilience in the context of occurrence of catastrophic events. This article emphasize on the key processes of family and social resilience implied in risk situations, especially traumatic experiences. Refugee families are faced with various challenges ranging from physical and psychological trauma to changing the way of living. They often suffer from what Walsh



called, 'ongoing adaptational' stressors and dealing with survivor guilt and anxiety and worry over loved ones left behind. A multi systemic resilience system helped families adapt. Increase in spirituality by bestowing greater faith in God, strong family cohesiveness and role flexibility thereby catering to adaptation were some indicators of resilience seen in the families.

The prime objective of the study done by Yun et al. (2005) was to identify factors which influence the difficulties posed by cancer on the family system and how these difficulties in turn affect the quality of life. The factors identified were care giving assistance, major life change, inability to function normally, loss of savings, loss of income and altered education plans. Results indicated that loss of family income was most strongly related to quality of life (QOL). Severe care giving difficulties were reported by many families such as inability to function normally due to the stress caused by the illness. Most also reported financial setbacks and how the illness had led to them change their lifestyle. Loss of family saving was influenced by the strong interrelationship between 3 caregiver characteristics (income amount, general health status and marriage) and 3 patient characteristics (time since diagnosis, performance status and the medical costs for each month). Results thus suggest that economic burdens especially loss of family savings and major life changes like quitting one's job leading to loss of family income were seen to have a really high impact on the overall quality of life (QOL).

Turner et al. (2011) carried out a study whose objective was to describe the health status, levels of anxiety and depression, unmet supportive care needs and positive outcomes in partners or family members of breast, prostate and colorectal cancer survivors after 5-16 years of diagnosis. With respect to health status, partners and family members of survivors reported similar results to the general population. The study could not account for a significant relationship between patients and their partners with regard to levels of anxiety, however there was a positive correlation between higher frequency of unmet needs and anxiety. The study also reported that a majority of partners of participants put the cancer experience behind them, and the participants too reported positive outcomes following their experiences. Through the study, they also found that respondents were able to derive some positive lessons from their cancer experience where two thirds reported that they appreciate life greater while 40% felt that they had become a stronger person.

A web based survey study done by Frain, Berven, Chan & Tschopp (2008) focused on how family resiliency, cognitive appraisal and disease progression were the three major factors that caused about 60% variance in the quality of life (QOL) for 125 people with HIV/AIDS. Results showed that changes influenced by cognitive appraisal and family resiliency overlapped with each other when it came to assessing the quality of life, while disease progression might not be a significant factor influencing quality of life. Family involvement led to optimism in individuals with HIV/AIDS which had a positive correlation with Quality of life (QOL).

Owen, Giese-Davis, Cordova, Kronenwetter, Golant, & Spiegel (2006) have stated that emotional expression and cognitive efforts to adapt to cancer are directly related to higher psychological

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functioning. Participants were asked to share their experiences with cancer after completing certain tests measuring emotional suppression and mood disturbance. Results indicate a direct relationship between suppression of emotion and increase in distress. However results also indicated that neither levels of emotional suppression and self efficacy were not associated with factors such as gender, the stage of the disease, the time elapsed since diagnosis, nor was mood disturbance associated with gender or stage of the disease. However for longer time periods, higher mood disturbances were recorded. Most participants who suppressed their emotions had increased levels of cognitive processing associated with higher levels of mood disturbance.

Kristeller, Sheets, Johnson & Frank have stated that when dealing with a serious illness, there is a positive relationship between levels of religiosity and spirituality and adjustment levels. However differences were found in the levels of religiousness among participants and their subsequent responses to cancer adjustment. One hundred and twenty four cancer patient participants were divided into four groups which harboured the following results: group 1 had high functioning levels along with high spirituality; group 3 had high religious orientation but due to being depressed about their illness weren't able to draw any support from their religious orientation. Group 2 and 4 were more 'ambivalent' about their religious orientation, where Group 2 was able to express spiritually related feelings, while Group 4 had the least amount of religious expression and were seen to have maximum amount of difficulty adjusting to their condition (2011).

Compas, Stoll, Thomsen, Oppedisano, Epping-Jordan & Krag (1999) studied eighty women ageing between 36-80 years of age for the symptoms of anxiety and depression, when they were just diagnosed with breast cancer and at 3 and 6 months after diagnosis. The severity of the disease and the coping style(s) of participants were also studied. Near diagnosis, younger participants had poorer psychological adjustment, where younger women used emotional ventilation as their form of coping. However there was no longer a significant relationship between age and symptoms when assessed at 3 and 6 months post diagnosis. Researchers thus state that in regard of psychological adjustment to breast cancer, age can be considered as a resiliency response to initial diagnosis.

DeRosa et al. (2011) defined "health competence beliefs" as 'a multidimensional set of perceptions about health and well-being.' These include current and future health concerns, attitudes about health care, perceived ability to manage medical issues and perceived ability to relate to others. Authors of this research proposed that the aforesaid factors were important indicators of how young adults understand their health condition and how it shapes their belief system regarding their condition. Participants were measured for four factors - Health perceptions, Satisfaction with health care, cognitive component and autonomy and the results indicated that measures on health perceptions and cognitive competence was related to negative affect, while the satisfaction with health care scale was more weakly associated with positive and negative effect and mental health quality of life.



A research study aimed to investigate whether perceived self efficacy in breast cancer patient's affected their emotional, physical and social well being and whether the mental adjustment styles govern the above stated association. Self efficacy to be positively related with well being at 12 months and stronger for emotional well being and self efficacy on well being to be mediated by mental adjustment styles at 1 month were the two main formulated hypothesis. There was a positive and direct relationship with self efficacy and higher education, better physical functioning and better emotional functioning. If longer time has passed since diagnosis, the poorer is the self efficacy and well being, as was reflected by the participants' responses in the study. Fighting spirit was an indicator was positive adaptation (Rottmann, Dalton, Christensen, Frederiksen & Johansen 2010).

Osowiecki & Compas (1998) conducted a study pertaining to psychological adjustment in adult cancer patients, and they concentrated on two main areas i.e. control beliefs and coping. The participants were assessed 10 weeks after diagnosis for appraisals of control, use of problem and emotion focused coping strategies and symptoms of anxiety and depression. Results showed that use of emotional focused coping was related to more emotional distress as compared to problem focused coping indicating the former to be related with high levels of anxiety and depression also. Coping skills involved in problem focused coping were finding out about their disease, following treatment recommendations and actively trying to solve the problems posed by the stressors caused by cancer. Avoidant type of coping has found to cause greater emotional distress.

Study conducted by Okano et al. (2001) investigated mental adjustment of breast cancer patients who have experienced recurrence. Researchers through the study have tried to study the factors associated with the two mental adjustment styles i.e. fighting spirit and helplessness and hopelessness. Factors related to the former were history of major depression and performance status while those related to the latter were age, pain and history of major depression. Results thus indicated history of major depression to be correlated with both styles thereby confirming some literature which states that this factor is one of the most important factors which contribute to the development of psychological distress during the course of cancer illness or cancer treatment.

Study conducted by Dyson, Thompson, Palmer, Thomas & Schofield (2012) focuses on the relationship between unmet needs and distress amongst adolescents and young adults (AYA) with cancer and identifying any predictors of distress among the demographic, illness characteristics and supportive care needs among the target population. A cross sectional survey encompassing of fifty three patients aged between sixteen and thirty years who were within the time frame of a 4 month diagnosis, was undertaken. Results showed that 25 % of participants experienced increased levels of distress within the 4 months of diagnosis, irrespective of the gender. Looking at the hierarchy of unmet needs, physical and daily living needs were placed on the highest level and were followed by psychological needs and health system and information needs. Being in the pre-treatment stage increased the levels of anxiety as compared to being in-treatment or post surgery.

■ CHAPTER 3: METHODOLOGY

To understand family resilience and adjustment in emerging adult cancer patients.

- a) To understand adjustment in emerging adult cancer patients with respect to their illness.
- b) To understand family resilience to illness in families of emerging adult cancer patients.
- c) To explore interactional patterns between the cancer patient and their family post diagnosis

Research Design

The aim of this study is to study the relationship between family resilience and adjustment in emerging adult cancer patients in India. Qualitative research approach has been adopted for this study as it is associated with the social constructivist paradigm which places high importance on the socially constructed nature of reality. The main aim of this approach is to gain a rich understanding of people's experiences in context of the situation(s) under study. The researcher places himself in the research in such a way as to make sense of the meaning others hold about their world. (Creswell, 2003).

Sample and Sampling

The target population for this research is emerging adult cancer patients suffering from either leukemia or lymphoma type of cancer. These individuals are unmarried, living with family and currently undergoing treatment. Emerging adulthood is defined as the developmental stage period ranging between 18 to 25 years of age. (Arnett, 2000). The sample size undertaken for this study was of six participants and the sample was taken from Cancer Research Institute, Dehradun.

The method of sampling undertaken was convenience sampling. Convenience sampling is a non-probability sampling method where the participants are selected keeping in mind the ease of accessibility. The sample chosen was taken with a particular purpose in mind, however as all the participants were chosen from the same institute, the sampling method was of convenience and not purposive.

Following are the inclusion and exclusion criteria.

Inclusion Criteria:

- Emerging adult cancer patients between the age of 18 and 25.
- Emerging adults who are unmarried and living with their parents.
- Emerging adult participants should be aware of their diagnosis.
- Emerging adults who are undergoing ongoing treatment.
- Emerging adults who are at least 6 months into treatment.



Exclusion Criteria:

- Emerging adults been in treatment for less than 6 months.
- Emerging adult cancer patients who are nearing death.
- Emerging adults living with their family apart from their parents.

Certain **ethical considerations** that were considered were:

- Written permission was taken before starting the research project
- Complete disclosure of research details
- The confidentiality of all individuals was respected
- The respondents were informed that they had the choice of withdrawing from the study even before completion of the project.
- The audio interview and typed out transcripts were given false names and saved in protected folders to prevent unauthorized access.

Operational Definitions:

- ***Family Resilience***

The concept of family resilience offers a useful framework to identify and fortify key processes that enable families to surmount crises and persistent stresses. (Walsh, 1996). Family resilience involves the potential for recovery, repair, and growth in families facing serious life challenges. (Walsh, 2012).

Operational Definition: It is defined as the ability of the family to cope up with and show resistance to psychological risk when faced with the adverse life threatening illness of child i.e. young adults in this case. Under family resilience, the components being assessed are positive family adjustment to the illness, adaptive familial coping, family cohesion and communication, financial strains and changes in religious preferences.

- ***Adjustment to chronic illness (cancer in this case):***

It is the ability to adapt to the challenges posed by the illness and lead a healthy functioning lifestyle, both psychologically and socially.

Procedure

Use of the interpretive paradigm which has its origins in Edmund Husserl's phenomenology, because this paradigm acknowledges 'reality to be socially constructed' and thus research tries to understand the world through the lens of human experience, relying upon the participants views of what is being studied. (Mertens, 2005; Cohen & Manion, 1994 & Creswell, 2003). Interpretive approaches rely on naturalistic methods which ensure that there is an adequate

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conversation established between the researcher and those with whom they interact in order to together construct a meaningful reality, with the help of the research process. The interpretivist paradigm was developed as a critique to positivism. The following are the beliefs followed by this paradigm. Firstly it believes in relativist ontology which assumed that reality as we know it is constructed through the meanings and understandings developed socially and experientially. And secondly this paradigm supports transactional or subjectivist epistemology which assumes that we cannot separate ourselves from the knowledge of what we know. The investigator and the object of investigation are linked such that who we are and how we understand ourselves and the world around us is the central theme. Thus we can say the basic assumptions of this paradigm are:

- People may decisions and choices on the basis of their subjective understanding of the world around them.
- Social life consists of process and is thus dynamic in nature as it is constantly changing.
- People understand their experience through meanings found in symbols and thus language plays an important role.
- The world is made up of social objects and thus is defined by meanings hat are socially constructed.
- People's actions are based on their interpretations and thus these actions are defined by an individual's subjective reality.
- Self and others are defined by the social interactions that take place with others, who too like the self are social objects.

Semi structured interview schedules to be prepared for both the variables being studied. The schedules will be face validated by experts before conducting the interviews with the participants. The interviews with the participants are to be recorded for later referencing, after permission for recording has been granted. Data obtained through narrations to be then analyzed using thematic analysis.

Data Analysis

Data obtained through narrations to be analyzed using thematic analysis. Thematic analysis to be used to see whether there are certain common themes that emerge from the narration, such as positive family adjustment to the illness, adaptive familial coping, family cohesion and communication, changes in belief system, financial strains etc under family resiliency and themes such as emotional support from the family, social support, positive protective factors, patient's acceptance of the illness, feelings of hopelessness and helplessness, spirituality, changes in body image, future role changes, etc under the adjustment to illness domain. There are different ways thematic analysis can be used. These are:

- Inductive way: coding and the development of themes based on the content of the data.



- A deductive way: coding and development of themes are based on existing concepts or ideas;
 - A semantic way: coding and development of themes reflect the explicit content of the data;
 - A latent way: coding and theme development report concepts and assumptions underpinning the data;
 - A realist or essentialist way: focuses on reporting an assumed reality evident in the data;
 - A constructionist way: focuses on looking at how a certain reality is created by the data.
- This research will incorporate the inductive way of thematic analysis.

Thematic analysis involves the construction and application of codes which are applied to the data. Through the process of coding, we construct codes which are in relation with the data been collected through the various qualitative agents such as interviews, field notes, documents, photographs, videos, audios, etc. The process of coding involves the grouping of data from these various sources under an umbrella term which help to categorize a lot of information under one category characterized by same or similar characteristics. There are many plausible ways that categories can be related, and some of them are either as a cause (code A causes code B), a property (Code A is a property of code B), an aspect (Code A is an aspect of code B), an associate (Code A is associated with code B), a result (Code A has resulted from code B) or as a contrast (Code A is contrasting with Code B).

However one should bear in mind that as we progress with the research there might be a possibility that the definition of the codes might expand.

In this research, the raw data was obtained in the form of recordings and written notes (verbatim) from the participants. The raw data was then put into transcripts and translated for the benefit of research to progress. Certain basic themes were obtained from this raw data, which were grouped together to form the organizing themes. The global themes, characterized by these basic and organizing themes were in line with the research objectives of the study.

■ CHAPTER 4: RESULTS AND DISCUSSION

The aim of this study is to understand family resilience and adjustment in emerging adult cancer patients. To meet this aim, the process of thematic analysis was used. The process of thematic analysis was applied to the transcripts to bring out certain themes, which were important in order to understand the experiences of the participants. Each objective thus has certain themes which helps us gain a better understanding of that objective. However one should keep in mind, that there will be some aspects of the participants experiences, attitudes and beliefs which elicit similar or same responses across various categories under the same theme. Basic themes and Organizing themes were obtained from the patterns that emerged from the data and the Global themes were in line with the research objectives of the study.

Following, is a description of the three global themes of this study. These three Global themes were supported by basic themes, organizing themes and findings of other studies undertaken to support this research study.

Research Objective 1: To understand adjustment in emerging adult cancer patients with respect to their illness.

This global theme attempted to capture the various reasons as to what made emerging adults adjust effectively to their illness. Thus all the organizing themes obtained are subcategories of the global theme of factors affecting adjustment post diagnosis.

Under the global theme of factors influencing adjustment, the seven organizing themes were explored. The various factors influencing adjustment in emerging adults post diagnosis were acceptance of diagnosis, changes in family roles, future orientation, socializing patterns, changing bodily perceptions, positive attitudes and negative attributions.

Following is a tabular representation of the basic themes and organising themes, which constituted to the global theme of factors affecting adjustment in emerging adult cancer patients.



Table 1

Summary of Basic and Organizing themes under the Global theme of factors influencing adjustment in emerging adult cancer patients.

Global Theme	Organizing Themes	Basic Themes
1. Factors affecting adjustment post diagnosis	1.1 Acceptance of diagnosis	1.1.1 increased dependence on belief system 1.1.2 support from family members 1.1.3 increase in self care monitoring
	1.2 Changes in family roles	1.2.1 acceptance of changes in family roles 1.2.2 increased consideration for family members
	1.3 Future Orientation	1.3.1 modification of previous goals to accommodate new goals 1.3.2 desire to pursue same dream 1.3.3 financial difficulties altering future plans
	1.4 Socializing Patterns	1.4.1 decrease in social interaction 1.4.2 exhibit avoidance behavior in social situations
	1.5 Changing bodily perception	1.5.1 increased physical weakness
	1.6 Positive Attitudes	1.6.1 confidence in treatment 1.6.2 increased positivity about self 1.6.3 educating self about environment 1.6.4 motivated to return to daily routine
	1.7 Negative Attributions	1.7.1 not completely confident in treatment 1.7.2 decreased self confidence 1.7.3 increased negativity



1.1 Acceptance to diagnosis:

This organizing theme was found to be one of the most important factors as it helped to capture how each participant came to terms with the diagnosis in their own way and was able to acclimatize himself/herself individually to the diagnosis.

The data collected from the six participants elicited a variety of responses with regard to the theme of acceptance. The information provided us with a window to how each participant felt when they were told or they found out that they were diagnosed with cancer. The following are the factors which helped participants accept their diagnosis.

1.1.1 Increased dependence on belief system. Belief system played a vital roles as participants (P1 and P6) were able to immediately accept their diagnosis once they left the entire situation to be the will of God.

“...I left it to God..I just accepted it. Now God knows, what will happen...”
(P1, Personal communication, December 8th, 2014).

“It was very difficult...then I just left it to God”.
(P6, personal communication, December 9th 2014)

1.1.2 Support from family members. Acceptance of diagnosis due to strong familial relationships and support from their close knit families helped the participants in reconciliation. The former group’s undying support towards the patients, aided each one of them in accepting the diagnosis more easily.

“Actually I denied..I was not sure I have it..parent don’t tell me...later they supported me and helped me deal with it...”
(P5, personal communication, December 9, 2014)

1.1.3 Increase in self care monitoring. Indulgence in self care monitoring methods were explored in order to get a better take on the illness and the treatment.

By learning more and more about the illness and becoming aware of the impact of the illness and the necessary treatment procedures involved, the feelings of confusion and sorrow were dispelled with more ease.

“ I then checked on the internet and read about cancer and then understood what it was, after which it was easy to let go.”
(P3, personal communication, December 7, 2014)



Being informed about a certain something, can have two main possibilities. Generally in such cases the possibility of one getting scared by knowing more about a particular illness considering one is subjected to it. In this case, technological aid helped the participant accept and adjust to his illness better. This suggests that the outcome of various critical decisions in life is dependent on the personality make up of the individual and not just the ongoing situation in hand.

Larkin (1987) studied the factors influencing one's ability to adapt to chronic illness. The research study indicates that factors such as care, technology, family relationships, developmental level, cultural values and beliefs, communication, and economics, need to be taken into account when understanding the same. Study done by Osowiecki & Compass (1998) found that the coping pattern in adult cancer patients was of problem focused coping where they were able to adjust better after researching about their illness.

Thus acceptance to the diagnosis is mainly influenced by the participants' beliefs, their family care giving and their ability to gather information to understand more about themselves, which is equivalent to the literature, so far.

1.2 Changes in family roles:

This organizing theme explored how the diagnosis of cancer modified the attitudes of the patients towards their family.

1.2.1 Acceptance of changes in family roles. Emerging adult cancer participants, all, accepted to a change in their functioning in the family after the diagnosis. It was known that all had realized the importance of their life and that of having a family.

“ I realized the value of my life after this only...there have been changes in my responsibilities. I have to do so much more for them now in whatever time I have”.

(P2, Personal Communication, December 8th, 2014)

1.2.2 Increased consideration towards family. Participants have become more caring and loving towards their families which is indicated by their attitude towards them. Almost all participants, except participant P4, expressed that they had become more responsible in the family post diagnosis. They were more concerned about the welfare of the family than that of their own as was indicated by their attitude. They feel the burden of responsibility and want to work in order to provide for their families.

“ responsibilities too have increased...earlier it was all about doing something...now its about doing something for the family..that they should be happy...then its okay “

(P3, personal communication, December 7, 2014)

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Similarly P5 said,

“ .. wanted to go for future studies, but now decided to do something for the family and will take government job whenever possible”

(P5, personal communication, December 9, 2014)

1.3 Future Orientation:

This organizing theme dealt with whether there were any changes or modification for future plans of the emerging adult participants after a diagnosis like cancer was given. The basic themes under this organizing theme was proof to in what ways did a cancer diagnosis affect the future planning of cancer patient as all the emerging adult participants expressed that their plans had been changed in some way, if not fully, post diagnosis.

1.3.1 Modification of previous goals to accommodate new goals. Certain modifications were seen in the participants plans prior to diagnosis and after diagnosis. Participants let go of their future plans when the diagnosis was given. However, they have been trying to keep a positive attitude and have shown renewed interest in their future plans by trying to look out for new avenues of interest. Their choices seem to be wavering as they haven't decided upon the exact course of action yet. Two separate perspectives were also highlighted where one participant had completely given up on this future plans while the other participant got all the more motivated to follow his dreams, though the diagnosis did hold him back for a while. Participant P6 expressed that he had completely given up on the future as a diagnosis like cancer ensured instability and uncertainty with regard to the future and thus it was no use thinking about it.

“And now after a diagnosis like this, what kind of future can really happen...you never know when what happens. Whats the use of thinking about what to become now?”

(P6, Personal communication, December 9th, 2014)

While participant P1 expressed his desire to pursue his dream regardless of the diagnosis.

“ So what I have cancer...I will study MBBS. But you also know how difficult it is. I'll give the exam now...let's see”.

(P1, Personal communication, December 8 th, 2014)

Financial difficulties have also contributed to modification of goals post diagnosis. Participant P5 conveyed that she would love to pursue higher studies, but because of her family's financial crisis due to treatment costs, there were changes in her future plans. She conveyed that she would like to take up a job and support the family instead.

“But my family has financial crisis...wanted to go for future studies but now decided wanted to do something for family and will take a government job whenever possible.”.

(P5, personal communication, December 9th, 2014)



Hokkanen, Eriksson, Ahonen & Salantera (2004) conducted a study understanding the experience of life of adolescents with cancer. Results indicated that participants (20 adolescents ageing between 13 to 18 years) made little or no conscious effort to plan for the future as they were mostly concerned with their treatment and how their illness would affect the future.

Thus results are not in line with previous research as most participants are preparing themselves to be attuned to the future in some way and have not given up completely.

1.4 Socializing patterns:

Even though a lot is being done about spreading cancer awareness, there still exists a social stigma in many against people with cancer. However one generally tends to look at this entire scenario from an external viewpoint, but this is not to say, that it doesn't play a vital role. Data collected throws light upon this major fact and is representative of this organizing theme thus.

1.4.1 Decrease in social interaction. Post diagnosis, a decrease in social interaction was seen as a pattern with most participants. It was observed that most of the participants themselves withdrew completely or partly from social situations. On inquiring, it was known that, *“this change was brought about by my diagnosis”*.

Three of the six participants (P1, P3, P5) openly admitted to being aloof, and distancing themselves from the rest of the world (P4), as that's how they felt comfortable in their own skin.

“ I like meeting people and interacting....but then its just that people tend to talk about it again and again “

(P3, personal communication, December 7th, 2014).

“ Yes...have stopped...(going out and meeting people)...because of cancer....because I have cancer. “

(P4, personal communication, December 28th, 2014).

1.4.2 Exhibit avoidance behavior in social situations. It was observed that there is a tendency of participants to avoid interacting with people. Their interactions too were limited to their friends who visited them at home, but even then they often tried and avoided social situations altogether. It was brought to notice that most participants did this voluntarily as they did not want to answer frequently questions about their illness and have people pity them.

Participant P5, expressed how she changed her friend circle, as he did not want to be subjected to questions pertaining to her illness and to avoid being pitied.

“ Those people who know I am ill, don't talk with them. I made new friends. Old friends have negative image. They had very weird weird questions. I don't want to answer. I like to keep to myself and my work but trying to be like that - those who have a lot of friends”

(P5, personal communication, December 9th, 2014)



Thus, most cancer affected people tend to stay away from others as they don't want themselves to be subjected to questions about their illness repeatedly and to be put down by those questions again and again. This pattern however, has seen to differ from literature. Research by O'Connor et al (1990) stated that social support was a significant factor reported in individuals recently diagnosed with cancer when dealing with their illness and when finding meaning in their life. Another study indicated that adolescents hope for improving were directly influenced by the support they received from the society. (Hokkanen et al., 2004).

This could be vital in understanding social support systems in lower socio economic status considering all participants belonged to a similar such background.

1.5 Changing bodily perception:

This was one of the most important aspects to explore with regard to adjustment to the illness considering the changes which occur in a person's body due to cancer treatment. All six participants expressed freely that they had a lot of difficulty come to terms with the changes in their body due to treatment being undertaken. An array of responses was obtained with regard to this theme.

1.5.1. Increased physical weakness. Physical fitness was a factor which was given a lot of importance by the participants and they despised the fact that they were so physically unfit and felt weak all the time. Other responses regarding this were statements which indicated that they felt sad about their body and that for them their body was like a burden.

“ I feel like my body is a burden ” (P5, personal communication, December 9th, 2014)

Thus it was observed that there was a heightened drop in self confidence of the cancer affected participants due to changes in their own perception of their body. Hokkanen et al. (2004) reported that adolescents linked their hopes of getting better with good physical care activities. This is in line with the data collected, where physical fitness was a prime factor influencing their body perception.

1.6 Positive Attitudes:

Attitudes assessed the participant's approach towards the illness and this approach majorly defined their adjustment to their illness. A multitude of responses were obtained from interviewing six participants which is indicative of the fact that participants try and be as positive as possible irrespective of the given diagnosis.

1.6.1 Confidence in treatment. Participants kept a positive attitude to their illness with respect to the treatment as they stated to have full confidence in it and believed that their treatment is



helpful. P2 believed that a good doctor patient relationship is a must, and he believed that he has adjusted well to his illness due to his doctor.

“If the doctor is good, half of the illness is cured just like that”
(P2, personal communication, December 8th, 2014).

1.6.2 Increased positivity about self. Some of the positive qualities participants used to adjust to their diagnosis were to have a good sense of humour, being realistic in life, being normal and happy and taking pride in who they were.

Participant, P2, expressed that he was proud of whom he was, and he wishes to inspire others someday.

“I want to become an inspiration for everyone. Right now in various places, people think that oh he is a cancer patient...can't dependent on him...and that nothing more can be done for him...thats why...I want to tell people that just because I am a cancer patient doesn't mean I can't do anything”.

(P2, personal communication, December 8, 2014).

Participants also liked to keep a hobby such as sports or music to help them with adjusting to the illness.

1.6.2 Educating self about environment. Participants had a realistic standing about their own illness and its nature and tried to keep themselves in sync with the environment. Participant P1, liked to keep himself informed about his surroundings, and by educating himself about the environment he was able to keep a better positive stance, thereby aiding him in his adjustment to cancer.

“...you can read a lot on the internet..its helps to understand the situation better”.
(P1, Personal communication, December 8th, 2014).

1.6.4 Motivated to return to daily routine. Participants were also motivated to return to normal routine as was indicated by their desire to take up responsibilities, attempting to increase their role in social interactions and wanting to spring back to normal.

“... I'm trying my best too slowly be more like the person I used to be.”
(P3, personal communication, December 7th, 2014).

Thus from the above account it is clear that participants response to illness differs greatly, but whatever it may be, they try to be as positive about it as possible.



1.7 Negative Attributions:

It would be wrong to see the plus points, without assessing the negative qualities and approaches applied by the patients which often proved to be counter-attacks to the other protective factors.

1.7.1 Decreased self confidence. Changes in body image due to treatment led to a major blow on their self confidence. Data collected is also indicative of decrease in self confidence post the diagnosis. Participants experienced the “why me” complex where they contemplated over their illness. Three of six participants are yet to come fully to the terms of the diagnosis thus. Participants also expressed that they felt burdensome on their families. Participant P4 indulges in self blame post diagnosis and felt that he was responsible for his family’s present condition.

“ Because of me, whatever is my family’s condition right now...its because of me.. ”
(P4, personal communication, December 28th, 2014).

1.7.2 Not completely confident in treatment. Not all participants were completely confident in their treatment as their stance was mostly realistic in nature. Participant P1 openly communicated his fears regarding chances of recurrence, even if the treatment happened to be a successful one.

“ complete confidence isn't there.. Because there are always chances of reoccurrence ... cancer...cancer is not..totally curable right now..so.... ”
(P1, Personal communication, December 8th, 2014).

1.7.3 Increased negativity. Participants post diagnosis expressed to have had unwanted thoughts like thoughts of being dead and having nightmares.

“I used to think...that how many days are left for me to live”
(P6, personal communication, December 9th 2014)

The increased negativity can also be understood in terms of the fact This can also be that a lot of participants were misinformed about their illness (P2, P3, P4, P5). They were either not told about the illness at all, or were told by individuals other than their family members unintentionally. Thus getting to know later on, came as a shock to many, and had adverse effects on their overall adjustment to the illness.

“ ..got to know from friends...then asked my family...they said it was nothing like that...and that friends are just saying it for no reason.”
(P3, personal communication, December 7th, 2014).



To conclude we can say that even though a lot of positivity is reflected, there are still certain negative defense mechanisms that have been put into use by these participants which have contributed to their overall adjustment.

Research Objective 2: To understand family resilience to illness in families of emerging adult cancer patients.

Under the global theme of factors influencing Family Resilience the researcher explored five organizing themes. They were family outlook, economic conditions, family strength, and vulnerability to get influenced, family's approach to diagnosis, family's interactional patterns, religious orientation and alternatives to prescribed treatment. These five organizing themes facilitated in recognizing how resiliency was achieved by the family members of emerging adult cancer patients in day to day life on and after the diagnosis.

Following is a tabular representation of the basic themes and organizing themes, which constituted to the global theme of factors influencing family resilience towards the illness.

Table 2

Summary of Basic and Organizing themes under the Global theme of factors influencing family resilience towards the illness in families of emerging adult cancer patients.

Global Theme	Organizing Themes	Basic Themes
2. Factors influencing family resilience	2.1 Family Outlook	2.1.1 positive outlook on family's condition 2.1.2 increased extrinsic motivation 2.1.3 increase in preoccupation with the patient
	2.2 Economic Conditions	2.2.1 increased economic difficulties
	2.3 Family Strength	2.3.1 family maintains strength of relationships after diagnosis 2.3.2 not affected by other people
	2.4 Vulnerability to get influenced	2.4.1 have pet peeves
	2.5 Family's approach	2.5.1 increased difficulty in



to the diagnosis	acceptance 2.5.2 no awareness about illness
2.6 Family interactional patterns	2.6.1 favorable family interactional patterns 2.6.2 selective interactional patterns
2.7 Religious Orientation	2.7.1 increase in religious involvement 2.7.2 begin to believe in a higher power
2.8 Alternative to prescribed treatment	2.8.1 increase in preferences for alternative medication 2.8.2 used shamanism or spiritual healing

2.1 Family Outlook: As a theme, family outlook helps us to understand how the family is dealing with the illness, in a day to day basis.

2.1.1 Positive outlook on family's condition. Most families had taken a positive stance on the entire situation. Family members articulated that they didn't want sympathy from people and that they believed in following only legit treatment procedures. When the same outlook was asked in context with other families, it helped to understand the family style adopted by the affected family at large, when a particular participant family was compared with another family under similar conditions. Three of six of the family members of participants believed that they were better than the other family members (P1, P4, and P5) while the other three gave three different responses. For the rest, a mixed bag of responses was obtained. Family members of Participant P2 made a comparison between themselves and other family members.

"When we see other families going through the same, we feel for them too...they must be going through the same amount of pain and hardships as we are. Everyone goes through it...whoever knows what it is"

(Family member of P2, personal communication, December 8, 2014).

Family members of participant of P6 felt that other similar families were coping better than them, and thus were in a better place than them.



“ No we aren't different. We are always just tensed. Maybe other families are better than us ”
(Family member of P6, personal communication, December 9, 2014).

Similarly, family member of P3 said that they didn't know about it.

2.1.2 Increased extrinsic motivation. Families also communicated that post diagnosis of cancer they felt an increase in extrinsic motivation, where they believed in miracles.

“We always believed in miracles as a family...now we believe in it even more”.
(Family member of P5 , Personal communication, December 9th, 2014)

2.1.3 Increase in preoccupation with the patient. Most families communicated that they have become more preoccupied with the patient post diagnosis. They are worried about the patient's health and often show a disregard for daily activities.

Thus from the variety of responses we obtained, we can understand how the frame of mind of family can affect the working of the family as a whole with regard to the illness.

2.2 Economic conditions: Cancer treatment is expensive and thus studying economic conditions were vital for understanding family resilience, for us to comprehend the kind and the amount of financial difficulties each family went through which would interchangeably affect their resilience in some way or the other to the illness.

2.2.1 Increased economic difficulties. Most families expect that of two participants (P1, P4) reported to have had financial difficulties. On personal level money was collected from friends and family (P3,P5,P6) and from institutions the patient's parents worked at while as at a public level money was collected in the form of donations through a public oriented foundation for cancer called the Hans Cultural Foundation (family member of P2), and from a government scheme called the ESI. (P3, P5, P6)

Thus money was collected for the treatment through different avenues which is also indicative of the types of social support systems the families have.

2.3 Family Strength: This item was defined as what the families thought to be of their greatest strength as they dealt with the illness.

2.3.1 Family maintains strength of relationships after diagnosis: From this, the data obtained indicated that families maintained their strength of relationships even after diagnosis. Love, unity and family and friendships were some of the things families of the participants considered as their

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greatest strengths. Family members reported that there was increase in support from close knit family members and friends in order to help them cope with the illness. Family members of participant P1 communicated that their greatest strength which had helped them cope with the illness was that of their son's response to the illness.

" Its my son's response to it...he motivate us to be hopeful...we also thought we should do the same....we get motivated and we motivate him".

(Family member of P1, personal communication, December 8, 2014).

2.3.2 Not affected by other people. A few families were not affected by other people as they did not given importance to what the others had to say. They tend to listen to them as they were open with their neighbors, but did not get affected by their mannerism of thinking.

" I don't even care to listen to other people. Its about my family, I don't even look back at people who talk about us".

(Family member of P3, Personal Communication, December 7th, 2014).

2.4 Vulnerability to get influenced: This describes the weakness of the family members in terms of getting influenced by other people.

2.4.1 Have pet peeves: Most families claimed to have had pet peeves. Pet Peeves are defined as certain things families of cancer patients wish other people didn't say to them or the patients themselves.

Families of participants P1, P2 and P6 expressed that they didn't like people having any negatively related illness conversations with the patient while family members of participants P3, P4 and P5 expressed that they would prefer if people did not talk about cancer to the patient at all.

Family member of participant P6 expressed their immense disliking for people who always commented on the patient's illness as to how he was responsible for his own illness.

" ...his shortcoming is made by he himself..."

(Family member of participant P6, personal communication).

Some families tend to give slight importance to what other people think and say, while others expressed that they were majorly affected by what other people think. For a certain family, they tend to keep it together, but on repeated listening of what others had to say, their comments became the breaking point for them. (Family member of P5).

Thus, by understanding what is keeping a family strong and what affects the family's will power, also helps us understand the concept of resilience to the illness better.



2.5 Family's approach to diagnosis: This gives a broader understanding of how families' dealt with the illness when they were told about the diagnosis themselves.

2.5.1 Increased difficulty in acceptance. Most families had increased difficulties in accepting the diagnosis. Families reported to be scared and tried to keep it together by keeping a positive outlook on the entire diagnosis.

2.5.3 No awareness about the illness. Three of the families reported that they had no idea about the illness. (P2,P4,P6). This is can perhaps be attributed to the fact that most families interviewed belonged to a lower socio economic status and were not very educated.

"We had no clue about it...had heard about it, but never thought it would happen to us".
(Family member of P4, Personal Communication, December 28th, 2014)

2.6 Family Interactional patterns: Through family interactional patterns we can understand the kind of dynamics present amongst the family members and how they support each other. More the family support, better the adaptation.

2.6.1 Favorable interactional patterns. Most families believed that it was good to talk to each other and shared feelings amongst each other thereby having favourable interactional patterns in the family (P1, P2, P3, P5). Family cohesiveness was measured in terms of good interactional patterns amongst family members (P1, P2, P3, P5), family interdependence (P1, P5, P6) and in terms of family support (P1, P2, P3, P4, P6). Family members of P6, used humour to often laugh it off and make the situation lighter around.

2.6.2 Selective interactional patterns. Families of some cancer patients choose to be selective in what they expressed while one family reported to not talk about the illness at all, until and unless it was treatment related. (Family member of P4). Most families also reported that they shared feelings with each other, expect for the father figure, who chose to keep to himself. (P2, P3, P5).

2.7 Religiosity: This theme predominantly studies the changes in religious practices in family members after the diagnosis. The basic themes under this organizing theme are as follows.

2.7.1 Increase in religious involvement. Most families had a certain religious orientation (P1, P5, P6), which was observed to increase post diagnosis (P1, P2, P5, P6). Families of P3 and P4 reported to have continued on their normal routine.

2.7.2 Begin to believe in Higher Power. Most families tend to be god fearing expect for the Family member of P2, who expressed that post diagnosis, they had started to believe in a higher power, in god, thereby changing their orientation from being a non believer to a believer, as their child showed improvement.

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“I don’t believe in God, but since the time he has improved a bit, I have started to believe in him”

(Family member of P2, personal communication, December 8th 2014).

Thus factors such as family cohesiveness, good interactional patterns, family strengths and increase in religiosity are used as positive coping strategies by family members of cancer patients.

2.8 Alternatives taken to prescribed treatment: Families of almost all participants have tried alternative medication or spiritual healing before or during prescribed medical treatment. This can be owed to their lower socio economic status, a lack of knowledge and their background. The basic themes under this organizing theme highlight the use of alternative medication and spiritual healing as tried substitute of prescribed treatment.

2.8.1 Increase in preferences for alternative medication

Alternative medication in the form of Ayurveda or homeopathy was given without a prescription to three out of six participants by family members (P2, P3, P5) while one participant, P4, was given medication by family members which was neither the prescribed medicines nor Ayurvedic or Homeopathic. Family of participant P1 have thought of giving the patient alternative medication, but did not act on it.

2.8.2 Used shamanism or spiritual healing. It was observed that four out of six families believed in shamanism or spiritual healing and have undertaken it as an alternative form of treatment. (P2, P4, P5, P6). Common to such treatments were making the patient wear a ‘taabees’, a locket (P2, P6) doing witchcraft (P2), giving holy water to drink (P4, P5, P6), ‘prasad’ to have (P6) and rose petals to chew (P6).

On asking whether these methods worked families of P2 and P5 admitted to them being of no help while family of P6 said that it helped the patient.

“ he used to see wrong things...used to talk in his sleep...after giving the taabees, he got some rest” (Family member of P6, personal communication, December 9th, 2014).

Alternative forms of treatment such as shamanism or spiritual healing can chiefly be based on the fact that most of them belonged to lower socio-economic backgrounds and such practices are still very prevalent in villages of India. But on interaction it was known that they were open to admitting their shortcomings too.



Research Objective 3: To explore interactional patterns between the patient and the family post diagnosis.

Since the research aims to study adjustment in patient and resilience in the family, it was important to understand the interactional patterns between the two, in order to gain an insight into the overall family dynamics.

Under the global theme of factors influencing interactional patterns between the cancer patient and their family post diagnosis, the researcher explored three basic themes. They were family support system, social support system and communication patterns. A good correlation between system dynamics and proper communication highlights good interactional patterns, which is what the organizing themes are trying to look into.

Following is a tabular representation of the basic themes and organizing themes, which constituted to the global theme of factors influencing interactional patterns between cancer patient and their family post diagnosis.

Table 3

Summary of Basic and Organizing themes under the Global Theme of Factors influencing interactional patterns between the cancer patient and their family post diagnosis

Global Theme	Organizing Themes	Basic Themes
3. Factors influencing interactional patterns	3.1 Family support system	3.1.1 favourable family support
		3.1.2 family members as role models
	3.2 Social support system	3.2.1 changes in intimate relationships post diagnosis
		3.2.2 change in friend circle
	3.3 Communication Patterns	3.3.1 almost unaffected communication patterns

3.1 Family Support System: This theme is defined by the nature of family support and supportive figures in the family according to the patient.

3.1.1 Favorable family support. Most of the participants hailed from nuclear families. All of them revealed to have no family discord as such and claimed to have a very supportive family.

“ *My family has supported me in every way*”

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(P1, personal communication, December 8th, 2014)

“ Ya, they are very supportive. Even when they didn’t tell me....they thought I wont be cured maybe, they supported me a lot nonetheless and do so even now.”

(P5, personal communication, December 9, 2014).

Family comes first! It is rightly said, as family support is of prime importance in any social support system. Most families have responded positively to the illness as they continued to take an encouraging stance towards the illness for their family member. Often the caregivers tend to have their own emotional responses to the patient’s diagnosis which in turn affects the patient. However it was observed that this stance, maybe was a make believe stance, but the families were willing to do so, for the betterment of their family member and his or her mental health. Few families were very positive with regard to the diagnosis and also extended emotional support when required.

“ Important is emotional support....I mean its not like someone is scolding me or someone is crying...nothing of the sort...positive, everyone is positive.”

(P1, personal communication, 8th Dec, 2014).

A couple of participants said they experienced an increase in family cohesiveness post diagnosis, which helped them tackle the illness better as they felt closer to their families.

“ It was alright since the beginning.. I’m much closer to everyone now.”

(P2, personal communication, December 8th 2014).

“ ...they have become even more caring and understanding than before...”

(P3, personal communication, December 7, 2014).

Family cohesion refers to the emotional attachment between members of the family such that there is cooperation and respect amongst family members. Here it reflects the bonding patterns amongst the members and how that in turn plays the life of a young adult cancer patient. Results show that most families have the capacity to stay unified or become so post diagnosis, thereby not only aiding to the patient, but also being at each others aid. They understand the value of a strong familial support system. Research conducted by Phipps and Mulhern (1995) suggest that family cohesion and the ability to express within the family act as protective factors promoting resilience while any form of family discord acts as a risk factor which affects adjustment.

If there are stronger bonds formed between the patient and the family member/caretaker, better is the adjustment to cancer. It also indirectly helps the family members or caretakers resilience to



handle stressful events concerning the illness or in relation to it. Hence the perceived family environment acts as a determinant for adjustment in cancer.

3.1.2 Family members as role models. Participants gave an array of responses for who they considered their supportive figures. Three of the participants said that their brother(s) was the person who was least worried about them and who believed that they would get better no matter what. Two other participants stated that their mother was the major supportive figure for them, while one of them said that for him, his father was the most supporting in the family. One participant however reported that there was no one as such who he would choose to be so, as for him everyone was scared.

“ my brother... I don't know how he stays behind my back...he supports me such, as if nothing has happened and he is always with me.” (P3, personal communication, December 7, 2014).

Supportive figures are those people who the patients rely on the most and often look up to, especially in their times of dire need as they are the ones who exhibit positivity throughout. These are members of the family, who for the patient are the most eminent family member who is there for them no matter what.

Research has showed that adolescent patients often choose parents or a close friend as their greatest sources of social support and thus are able to better adapt to cancer due to their strong family support.(Paterson et al, 2003). Participants in the present study, too mostly claimed one of their parents or their brothers to be the source of their support.

3.2 Social support system: It was also observed that apart from familial relationships, there were certain variations and developments in personal relationships.

3.2.1 Changes in intimate relationships post diagnosis. One male participant expressed how his girlfriend had broken up with him, once she got to know of him being diagnosed with cancer.

“ ...if you look at a relationship..it has changed...with my girlfriend, she broke up with me when I was diagnosed.” (P3, personal communication, December 7, 2014)

While a female participant expressed that even after having cancer, she got into a new relationship.

“ Even though after this I got into a new relationship.” (P5, personal communication, December 9, 2014).



The results show the two sides of a coin. They show how people can be accepting of one, no matter what, while they are still others who judge a book by its cover. They tend to label them as someone with cancer. They sympathize, but not empathize. This highlights the stigma associated with cancer and how this in turn affects the amount of emotional support received by the patient. This is generally the age when young adults seek intimate and sexual relationships. However, a diagnosis like cancer, most often tends to avert this otherwise normal development in their lives. Some are able to adjust to these changes quite easily while some aren't able to do so, and get distressed as individuals were cancer most of the times are battling an ongoing struggle to lead a normal life.

3.2.2 Changes in friend circle. Most participants saw no changes in their friend circle except for participant P5, her friend circle would bring her down, and thus she sought to change her friend circle. Social support groups are important coping strategy adopted by patients. Almost for all participants their friends have been a strong source of comfort for them. Like participant (P3), his old friend was his source of comfort and support. He reported that whenever he wanted to talk, he would talk to his friend and it would help him feel better or get a new perspective on things.

Overall, one can conclude that a strong family support system increases the adjustment of the patient to the illness and also helps to increase his/her quality of life. A study carried out by Courtens et al (1996) conducted a longitudinal study on quality of life and social support in cancer. The participants were divided into small networks which mostly consisted of family members. Results of the study indicated that increase in emotional support from family members led to an increase in the quality of life of the patients. Results also suggest that patients' perception of a decrease in quality of life was directly related to a decrease in emotional support. Thus family support is instrumental for the patient's adjustment to cancer.

3.3 Communication Patterns: Communication holds the key to any relationship. Here too, one cannot study interactional patterns between the patient and their families without touching upon the theme of communication. If there is communication, then there will be family cohesion.. A balance of the two is what makes good interactional patterns in family. According to Olson (2000) communication is an important factor that influences flexibility and cohesion thereby influencing the relationship between the two. Thus communication is vital to a family system.

3.3.1 Almost unaffected communication patterns. Most participants reported to not witness any or much change in communication in a negative manner. However one participant reported to have changes in communication pattern with his father, where now his father wouldn't listen to him at all and he is perpetually worried about his father

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“ I’m worried for my father, he has started to drink a lot more and smoke since the diagnosis. Whenever I’m in the hospital, he is at home, I perpetually become more tensed. He doesn't listen to me any more, especially when I ask him not to do it.” “it hurts me to see him so...”
(P2, personal communication, December 8th 2014).

The participant(P2) also observed to have unsaid tensions between him and his parents

“ They haven’t said it, but I feel so.”

and he felt bad that he couldn’t make them laugh like he used to.

“ I was able to make them laugh a lot earlier, now a lot of that has changed.”

Gotcher (2009) conducted a research on the effects of family communication on psychosocial adjustment of cancer patients, which suggested that interactions with immediate family members were key in effective adjustment, and that emotional support was an important predictor of adjustment.

Hence having a strong family support system with good communication and proper functioning directly influences the overplay of young adult’s adjustment to cancer and the family’s resilience to the illness.

■ **CHAPTER 5: SUMMARY AND CONCLUSION**

Cancer is known to be one of the most lethal illnesses that is responsible for the rocketing increase in mortality rate around the world. Various researches and articles have been published to get a better understanding to the area of cancer. However most of the research focuses on pediatric cancer or cancer in adulthood, with very little research done on cancers affecting young adults and adolescents in comparison.

The purpose of research study was to understand family resilience and adjustment in emerging young adult cancer patients and explore the interactional patterns between the emerging adult cancer patients and their families. With its ever increasing prevalence, it is becoming more and more important to understand the dynamics of the illness and how the illness in turn impacts those affected and their families. The interview guide was created keeping in mind the well being of not only the participants but also their families. A semi structured interview was thus developed and conducted on 6 unmarried participants ageing between 18 to 25 years and their family members. The approach for the study was qualitative in nature and thematic analysis was used to analyze the data.

Findings of the study

The results obtained were indicative of factors which were characteristic of each research objective. Overall three main global themes, in line with the research objective, were obtained. They were:

- Factors influencing adjustment in emerging young adults cancer patients
- Factors influencing family resilience to the illness
- Factors influencing interactional patterns between the family and the cancer patient

The first global theme was factors influencing adjustment in emerging young adult cancer patients which was in line with the first research objective. As the name suggests, this theme studied the various factors that could affect adjustment of the cancer patient to his or her illness. The various factors were acceptance to diagnosis, attitude towards family, future orientation, socializing patterns, changing bodily perception, positive attitudes and negative attributions. Major findings included negative response patterns in patients with regard to acceptance of diagnosis, change in attitude towards family members in terms of responsibilities and being more considerate, fluctuations in future plans, decrease in socialization post diagnosis and having difficulties coming to terms with body, amongst others.

The second global theme was factors influencing Family Resilience towards the illness which was in line with the second research objective of the study. The various factors that emerged to have an impact on family resilience were the family outlook, economic conditions, family strength, vulnerability to get influenced, family's approach to diagnosis, family interactional



patterns, religious orientation and alternatives to prescribed treatment. Some of the major findings included difficult economic conditions, increase in religious orientation, families being more likely to get influenced by others and most families trying out alternative medication before or during prescribed treatment.

The third global theme studied the various factors influencing the interactional patterns between the cancer patient and their family post diagnosis. The results indicated factors such as family support system; social support system and communication patterns had an impact on the interactional patterns. Favourable family support, changes in intimate relationships, and unaffected communication patterns due to strong support system are some of the major findings.

Limitations of the study

- Small sample size: The sample consisted of only 6 participants. A bigger sample would probably give a more diverse amount of information.
- Sample was confined to only one city: All the participants for the study were from the Cancer Research Institute, Dehradun.
- Sample predominantly consisted of male participants. (5 males, 1 female)
- Most participants belonged to the lower SES: Classes of diverse information could be obtained for the same objectives if the participants belonged to different socio- economic statuses.

Implications of the study

- This research contributes to a more in depth understanding of the well being of not only cancer patients, but their care givers and tries to explore the interactional patterns between them. Often there is no social support system for individuals belonging to the lower socio-economic statuses. As all participants in this study belong to a lower socio-economic status, this study will help psycho-oncologists, social workers and other related professionals build better social support systems for both the patient and the family.
- It helps spread awareness about cancer and the affected also initiates further research in this field in the Indian context.
- The family system is seen as a factor contributing to the illness, and so are the family members. Thus they tend to be an aspect of the study of interest, contributing to the main objective in whatever way possible. The functioning of a family system post diagnosis has rarely been the outcome of interest on its own.



Future Research

- This study encourages further research to be carried out in field of oncology with regard to adolescents and young adults (AYA)s within the Indian society.
- Further research can also be undertaken to explore the various ways in which one can improve the lifestyle behaviors in adolescents and young adults diagnosed with cancer, in the long term.
- One can also undertake research exploring the adherence of adolescents and young adult cancer patients to a particular program/project after the diagnosis of cancer.



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APPENDIX A

SAMPLE INFORMED CONSENT FORM

INFORMED CONSENT FORM

“FAMILY RESILIENCE AND ADJUSTMENT IN EMERGING ADULT CANCER PATIENTS”

You are being asked to participate in a research study conducted by Vishaka Kalra from the Department of Psychology at Christ University, Bangalore. The results of this study will be used to fulfill the requirements of a research project/dissertation for the degree of M.Sc Psychology (Clinical).

You are being invited to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

Purpose of the Study

The purpose of this study is to understand family resilience, adjustment in emerging adult cancer patients and try to determine the relationship between the two. There is no study related to this in India, although it is slowly gaining awareness.

Study Procedure:

If you agree to participate in my research, I will conduct an interview with you at a time and location of your choice. With your permission, I will audiotape and take notes during the interview. The recording is to accurately record the information you provide, and will be used for transcription purposes only. If you choose not to be audio-taped, I will take notes instead. If you agree to be audio-taped but feel uncomfortable at any time during the interview, I can turn off the recorder at your request. Or if you don't wish to continue, you can stop the interview at any time. I expect to conduct only one interview; however, follow-ups may be needed for added clarification. If so, I will contact you for further details.



Risks:

There is no risk with the study.

Benefits:

There will be no direct benefits to you for your participation in this study.

Confidentiality:

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

Your responses will remain anonymous. You are free to review/edit the audio tape and the data collected will be used for educational purposes alone.

Person to Contact:

Should you have any questions about the research or any related matters, please contact the researcher at vishakha.kalra92@gmail.com.

Voluntary Participation:

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign this form. You are free to withdraw at any time and without giving a reason.

Costs to Subject:

There are no costs to you for your participation in this study.

Compensation:

There is no monetary compensation for you to participate in this study.



Consent

“By signing this consent form, I confirm that I have read and understood the information and have the opportunity to ask questions. I understand that my participation is voluntary and I am free to withdraw at any time, without giving a reason and without cost. I voluntarily agree to take part in this study.”

Name of the Participant: _____

Signature: _____

Place: _____

Date: _____



APPENDIX B

Validated Tool

The study aims to study family resilience, adjustment in emerging adult cancer patients and to determine the interactions between the two.

Family resilience: It is defined as the ability of the family to cope up with and show resistance to psychological risk when faced with the adverse life threatening illness of young adults.

Adjustment to chronic illness (cancer in this case): It is the ability to adapt to the challenges posed by the illness and lead a healthy functioning lifestyle, both psychologically and socially.

The objectives of the study are:

- e) To study family resilience in families of emerging adult cancer patients.
- f) To study the level of adjustment in emerging adult cancer patients with respect to their condition.
- g) To study familial resilience and patient's adjustment to the clinical response to treatment of cancer.

Schedule

For the parents/caretakers

To measure family resilience

1. How did you as a family cope when your child was diagnosed with cancer?
2. What do you think is your greatest strength as a family that has helped you cope up with the diagnosis?
3. Do you give importance to what other people (neighbors and relatives) think? If yes, why? If no, could you please elaborate?
4. What kinds of resources (people, event, etc) are helping your ability to manage the illness?
- f) Some families find it helpful to talk to each other
 - a. Does your family support this view?



- b. What kind of support and comfort has the family provided to each other as a whole, in response to the illness?
- d) Has the illness posed any economic burdens on your family? If yes, could you state some incidents? How are you coping with them?
- e) In dealing with the illness, what has been the most taxing for your family, apart from economic burdens?
- f) Looking at the situation in hand and comparing yourself with other families how well do you think you as a family are coping with the illness?
- c)
 - d) Have you become more religiously involved since the diagnosis of the illness?
 - e) Have you considered shamanism or spiritual healing as an alternative therapy for treating this cancer?
 - f) Have you considered or given Ayurvedic or homeopathic treatment for his/her cancer?
- d) What are the things you wish you could do as a family and aren't being able to do? What are the barriers which prevent you from doing what you wanted to do?
- e) Do you have any pet peeves – things you wish people didn't say in front of your child?

For the cancer patient

To measure adjustment

- When you were told you had cancer, did you accept the diagnosis immediately or were you in a state of denial?
- Despite having cancer, are you able to feel positively about the outcome of your illness? If yes, how has taking a positive stance on your condition helped you in any way?
- Do you often have unwanted thoughts? If yes, what are they like?
- Do you think your roles in the family have changed since the diagnosis? If so, how? Could you quote certain instances?
- Do you think your treatment is helpful? If not, why?
- After taking treatment for cancer for some time now what is your view about your body post diagnosis?
- Has the diagnosis changed how often you go out and meet people? IF yes, how?
- Have your views about your future changed in any way since diagnosis? How? Could you elaborate?
-

To understand the interactions between the two populations

- Has your family been supportive since the initial diagnosis?
- How has family support helped you cope up with your condition?



- Has there been any familial discord post diagnosis?
- Has your relationship with any of the family members changed post diagnosis? If so, how? Could you quote certain instances?
- Who do you think is the least worried about this event? How does he or she affect you and your family's ability to manage the event?

All the tables listed are original in nature such that the contents have been derived from the data collected through interviews.

Research Objective 1: To understand adjustment in emerging adult cancer patients with respect to their illness.

Table 1

Summary of Basic and Organizing themes under the Global theme of factors influencing adjustment in emerging adult cancer patients.

Global Theme	Organizing Themes	Basic Themes
4. Factors affecting adjustment post diagnosis	1.1 Acceptance of diagnosis	1.1.1 increased dependence on belief system 1.1.2 support from family members 1.1.3 increase in self care monitoring
	1.2 Changes in family roles	1.2.1 acceptance of changes in family roles 1.2.2 increased consideration for family members
	1.3 Future Orientation	1.3.1 modification of previous goals to accommodate new goals 1.3.2 desire to pursue same dream 1.3.3 financial difficulties altering future plans
	1.4 Socializing Patterns	1.4.1 decrease in social interaction 1.4.2 exhibit avoidance behavior in social situations
	1.5 Changing bodily perception	1.5.1 increased physical weakness



1.6 Positive Attitudes	1.6.1 confidence in treatment 1.6.2 increased positivity about self 1.6.3 educating self about environment 1.6.4 motivated to return to daily routine
1.7 Negative Attributions	1.7.1 not completely confident in treatment 1.7.2 decreased self confidence 1.7.3 increased negativity

Research Objective 2: To understand family resilience to illness in families of emerging adult cancer patients.

Table 2

Summary of Basic and Organizing themes under the Global theme of factors influencing family resilience towards the illness in families of emerging adult cancer patients.

Global Theme	Organizing Themes	Basic Themes
1. Factors influencing family resilience	2.1 Family Outlook	2.1.1 positive outlook on family's condition 2.1.2 increased extrinsic motivation 2.1.3 increase in preoccupation with the patient
	2.2 Economic Conditions	2.2.1 increased economic difficulties
	2.3 Family Strength	2.3.1 family maintains strength of relationships after diagnosis 2.3.2 not affected by other people
	2.4 Vulnerability to get influenced	2.4.1 have pet peeves
	2.5 Family's approach to the diagnosis	2.5.1 increased difficulty in acceptance



	2.5.2 no awareness about illness
2.6 Family interactional patterns	2.6.1 favorable family interactional patterns 2.6.2 selective interactional patterns
2.7 Religious Orientation	2.7.1 increase in religious involvement 2.7.2 begin to believe in a higher power
2.8 Alternative to prescribed treatment	2.8.1 increase in preferences for alternative medication 2.8.2 used shamanism or spiritual healing

Research Objective 3: To explore interactional patterns between the patient and the family post diagnosis.

Table 3

Summary of Basic and Organizing themes under the Global Theme of Factors influencing interactional patterns between the cancer patient and their family post diagnosis

Global Theme	Organizing Themes	Basic Themes
1. Factors influencing interactional patterns	3.1 Family support system	3.1.1 favourable family support 3.1.2 family members as role models
	3.2 Social support system	3.2.1 changes in intimate relationships post diagnosis 3.2.2 change in friend circle
	3.3 Communication Patterns	3.3.1 almost unaffected communication patterns



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